WHAT IS CLAIMED IS:

1. A digital data receiver for recovering at least one message word signal included in a received digital data frame which consists of a plurality of sub-frames, each sub-frame including a given dotting sequence signal, a given word sync signal and a message word signal in which each signal is represented by a plurality of symbols and modulated by frequency in a mobile communication system, wherein a dotting sequence signal of the first sub-frame is longer than dotting sequence signals of the rest of the sub-frames, and the word sync signal and message word signal of each sub-frame consist of the same length and pattern, the digital data receiver comprising;

a digital FM demodulator for receiving said frequency modulated signals, and for demodulating a dotting sequence signal, a word sync signal and a message word signal of each sub-frame included in said digital data frame;

a dotting signal detector, which is provided with symbols of said signals demodulated by said digital FM demodulator, for detecting a dotting sequence signal of at least one sub-frame by determining whether the symbols corresponding to the dotting sequence signal are continuously detected more than a specific value that is shorter than the length of each dotting sequence signal;

a word sync detector, which is provided with symbols of said demodulated signals, for detecting the word sync signal of each sub-frame;

a frame end counter for determining termination of the received digital data frame by increasing or decreasing a counting number whenever each symbol is detected reaches a predetermined number, and for resetting to a initial number if the word sync signal is detected prior to reaching the predetermined number; and

a message processor means including a message accumulator that detects and stores at least one message word signal of the sub-frame from the demodulated signals, for recovering the at least one message word signal from message word signals stored in said message word accumulator until receiving of the digital data frame is terminated.

2. The digital data frame receiver as recited in claim 1, wherein the frame end counter determines termination of the received digital data frame after the dotting signal detector detects at least one dotting sequence signal.

3. The digital data receiver as recited in claim 1, wherein the message processor means recovers the message word signal after the dotting signal detector detects at least one dotting sequence signal and the word sync detector detects the word sync signal.

4. The digital data receiver as recited in claim 1, wherein said message processor means further comprises a message word block counter for counting the number of detected message word signals included in each sub-frame of the digital data frame from the demodulated signals, and for recovering a message word signal from message word signals stored in said message word signal accumulator when the number of the detected message word signals reaches a determined value.

5. The digital data receiver as recited in claim 1, further comprising a long dotting sequence signal detector, which is provided with symbols of said signals demodulated by said digital FM demodulator, for detecting a long dotting sequence signal by determining whether symbols corresponding to dotting sequence signal are continuously detected more than a determined value that is longer than the dotting sequence signal of the other sub-frames, but shorter than the length of the dotting sequence signal of the first sub-frame of the digital data frame after said dotting signal detector detects the dotting sequence signal of at least one sub-frame.

6. The digital data receiver as recited in claim 5, wherein said message processor means recovers the one message word signal from message word signals stored in said message word accumulator until the long dotting sequence signal is detected by said long dotting sequence signal detector.

7. The digital data receiver as recited in claim 6, wherein said message processing means further comprises a message word block counter to count the number of detected message word signals of each sub-frame from the demodulated signals, and for recovering a message word signal from message word signals stored in said message word accumulator until the number of detected message word signals reaches a determined value.

8. A digital data receiver for recovering at least one message word signal included in a received digital data frame which consists of a plurality of sub-frames, each sub-frame including a given dotting sequence signal, a given word sync signal and a message word signal in which each signal is represented by a plurality of symbols and modulated by frequency in a mobile communication system, wherein a dotting sequence signal of the first sub-frame is longer than dotting sequence signals of the rest of the sub-frames, and the word sync signal and message word signal of each sub-frame consist of the same length and pattern, the digital data receiver comprising:

a digital FM demodulator for receiving said frequency modulated signals, and for demodulating a dotting sequence signal, a word sync signal and a message word signal of each sub-frame included in said digital data frame;

a dotting signal detector, which is provided with symbols of said signals demodulated by said digital FM demodulator, for detecting a dotting sequence signal by determining whether the symbols corresponding to the dotting sequence signal are continuously detected more than a first specific value that is shorter than the length of each dotting sequence signal, and detecting a first dotting sequence signal of a new digital data frame by determining whether the symbols corresponding to the dotting sequence signal are continuously detected more than a second specific value that is longer than the dotting sequence signal of the other sub-frames, but shorter than the length of the dotting sequence signal of the first sub-frame of the digital data frame;

a word sync detector, which is provided with symbols of said demodulated signals, for_detecting the word sync signal of each sub-frame;

a frame end counter which increases or decreases a counting number whenever each symbol is detected after the dotting sequence signal detection, for determining termination of the received digital data frame when the counting number reaches a predetermined number, and for resetting the counting number if the word sync signal is detected prior to reaching the predetermined number; and

for determining termination of the received digital data frame through a way that counting number increased or decreased by number whenever each symbol is detected after the dotting sequence signal detection reaches a predetermined number, and for resetting the counting number to a initial number if the word sync signal is detected prior to reaching the predetermined number; and

a message processor means including a message accumulator that detects and stores at least one message word signal of the sub-frame from the demodulated signals, for recovering the at least one message word signal from message word signals stored in said message word signal accumulator until receiving of the digital data frame is terminated or the first dotting sequence signal of the new digital data frame is detected by said dotting signal detector.

9. The digital data frame receiver as recited in claim 8, wherein the frame end counter determines termination of the received digital data frame after the dotting signal detector detects at least one dotting sequence signal.

10. The digital data receiver as recited in claim 9, wherein the message processor means recovers the message word signal after the dotting signal detector detects at least one dotting sequence signal and the word sync detector detects the word sync signal.

11. A digital data receiver for recovering at least one message word signal included in a received digital data frame which consists of a plurality of sub-frames, each sub-frame including a given dotting sequence signal, a given word sync signal and a message word signal in which each signal is represented by a plurality of symbols and modulated by frequency in a mobile communication system, wherein a dotting sequence

signal of the first sub-frame is longer than dotting sequence signals of the rest of the sub-frames, and the word sync signal and message word signal of each sub-frame consist of the same signal length and pattern, the digital data receiver comprising:

a digital FM demodulator for receiving said frequency modulated signals, and for demodulating a dotting sequence signal, a word sync signal and a message word signal of each sub-frame which is in said digital data frame;

a long dotting sequence signal detector for detecting a dotting sequence signal of a first sub-frame by determining whether symbols corresponding to the dotting sequence signal are continuously detected more than a determined value that is longer than the dotting sequence signal of the other sub-frames, but shorter than the length of the dotting sequence signal of the first sub-frame of the digital data frame; and

a message processing means having a message word accumulator that detects and stores the message word signal of at least one sub-frame from the demodulated signals, and for recovering the message word signal from the message word signals stored in said message word accumulator after the long dotting sequence signal is detected by said long dotting sequence signal detector.

12. The digital data receiver as recited in Claim 11, wherein said message processor means further comprises a message word block counter for counting the number of detected message word signals of the digital data frame from the demodulated signals, and for recovering a message word signal from message word signals stored in said message word signal accumulator when the number of the detected message word signals reaches a determined value.

13. A method for recovering at least one message word signal included in a received digital data frame which consists of a plurality of sub-frames, each sub-frame including a given dotting sequence signal, a given word sync signal and a message word signal in which each signal is represented by a plurality of symbols and modulated by frequency in a mobile communication system, wherein a dotting sequence signal of the first sub-frame is longer than dotting sequence signals of the rest of the sub-frames, and

the word sync signal and message word signal of each sub-frame consist of the same signal length and pattern, comprising the steps of:

(a) demodulating said frequency modulated signals after receiving said frequency modulated signals of the digital data frame, and synchronizing the symbols of the signal;

(b) detecting the dotting sequence signal from the synchronized symbols;

(c) counting the number of synchronized symbol whenever each symbol is inputted after detecting the dotting sequence signal and determining the termination of receiving the digital data frame if the counted number reaches a predetermined value.

(d) in step (c), initializing the counting number of synchronized symbol if a word sync signal is detected prior to reaching the predetermined value;

(e) storing the message word signal of the sub-frame associated with the detection of the dotting sequence signal when the word sync signal is detected, and returning to the step (b); and

(f) recovering the message word signal from the stored message word signals when determining the termination of receiving the digital data frame.

14. A method for recovering at least one message word signal included in a received digital data frame which consists of a plurality of sub-frames, each sub-frame including a given dotting sequence signal, a given word sync signal and a message word signal in which each signal is represented by a plurality of symbols and modulated by frequency in a mobile communication system, wherein a dotting sequence signal of the first sub-frame is longer than dotting sequence signals of the rest of the sub-frames, and the word sync signal and message word signal of each sub-frame consist of the same signal length and pattern, comprising the steps of:

(a) demodulating the frequency modulated signals after receiving said frequency modulated signals of the digital data frame, and synchronizing the symbols of the signals;

(b) detecting and storing the message word signal after the word sync signal of the digital data frame is detected;

(c) detecting the start of receiving a new digital data frame by determining whether symbols corresponding to the dotting sequence signal are continuously detected more than a determined value that is longer than the dotting sequence signal of the other sub-frames, but shorter than the length of the dotting sequence signal of the first sub-frame of the digital data frame; and

(d) recovering the message word signal from the message word signals which are stored until the detection of the start of the new digital data frame.

15. A method for recovering at least one message word signal included in a received digital data frame which consists of a plurality of sub-frames, each sub-frame including a given dotting sequence signal, a given word sync signal and a message word signal in which each signal is represented by a plurality of symbols and modulated by frequency in a mobile communication system, wherein a dotting sequence signal of the first sub-frame is longer than dotting sequence signals of the rest of the sub-frames, and the word sync signal and message word signal of each sub-frame consist of the same signal length and pattern, comprising the steps of:

(a) demodulating the frequency modulated signals, and synchronizing the symbols of the signals;

(b) detecting the dotting sequence signal from the synchronized symbols;

(c) detecting the word sync signal after detecting the dotting sequence signal;

(d) detecting and storing the message word signal after detecting the word sync signal of the sub-frame;

(e) returning to (b) if the number of stored message word signal does not reach a number of total sub-frames of the digital data frame and recovering the message word signal from the stored message word signals when the number of stored message word signals reaches the number of total sub-frames of the digital data frame.

16. A method for recovering at least one message word signal included in a received digital data frame which consists of a plurality of sub-frames, each sub-frame including a given dotting sequence signal, a given word sync signal and a message word signal in which each signal is represented by a plurality of symbols and modulated by frequency in a mobile communication system, wherein a dotting sequence signal of the first sub-frame is longer than dotting sequence signals of the rest of the sub-frames, and the word sync signal and message word signal of each sub-frame consist of the same signal length and pattern, comprising the steps of:

(a) storing at least one message word signal of the digital data frame;

(b) detecting the dotting sequence signal of the digital data frame, and then counting the number of symbols whenever each symbol is inputted;

(c) recovering the message word signal from the stored message word signals when symbols corresponding to the dotting sequence signal are continuously detected more than a first specific value that is longer than the dotting sequence signal of the other sub-frames, but shorter than the length of the dotting sequence signal of the first sub-frame of the digital data frame, and then returning to the step (b);

(d) recovering the message word signal from all the detected message word signals when a counting number of the symbols reaches a second specific value, and returning to the step (b), and initializing the counting number of the symbols if the word sync signal of the digital data frame is detected prior to reaching the second specific value;

(e) if the word sync signal is detected, storing the message word signal associated with the detection of the dotting sequence signal of the sub-frame, and increasing the counting number of a message word block by 1; and

(f) returning to step (b) if the counting number of the message word block does not reach the second specific value, and after recovering the message word signal from the stored message word signals when the counting number of the message word block reaches the second specific value, and then returning to step (b).